

000-PTO Rev. 10/95		U.S. Department of Commerce Patent and Trademark Office		Application Number	10/666,909
<b>TRANSMITTAL FORM</b>  (to be used for all correspondence during pendency of filed application)				Filing Date	September 17, 2003
				First Named Inventor	Brenda F. Baker et al.
				Group Art Unit Number	Not Yet Known
				Examiner Name	Not Yet Known
Total Number of Pages in This Submission		5**	Attorney Docket Number		23546-07993 (RTSP-0313US.P1)

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REMARKS: \*\* References not included in total number of pages submitted.

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Signature:			
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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Brenda F. Baker *et al.*  
APPLICATION NO.: 10/666,909  
FILING DATE: September 17, 2003  
TITLE: DELIVERY OF OLIGONUCLEOTIDE COMPOUNDS INTO OSTEOCLASTS  
AND MODULATION OF OSTEOCLAST DIFFERENTIATION  
EXAMINER: Not yet known  
GROUP ART UNIT: Not yet known  
ATTY. DKT. NO.: 23546-07993 (RTSP-0313US.P1)

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INFORMATION DISCLOSURE STATEMENT

Under 37 CFR §§ 1.56 and 1.97-98

SIR:

Pursuant to the provisions of 37 CFR §§ 1.56 and 1.97-98, enclosed herewith is modified form PTO/SB/08A listing references for consideration by the Examiner. Enclosed is a copy of each listed reference that may be material to the examination of this application, and for which there may be a duty to disclose.

The filing of this Information Disclosure Statement shall not be construed as a representation regarding the completeness of the list of references, or that inclusion of a reference in this list is an admission that it is prior art or is pertinent to this application, or that a search has been made, or as an admission that the information listed is, or may be considered to be, material to patentability, or that no other material information exists, and shall not be construed as an admission against interest in any manner.

This Information Disclosure Statement is being filed:

- ☒ within three months of the filing date of the application;
- ☐ before the mailing of a first official action after the filing of a request for continued examination (RCE) under 37 CFR § 1.114;
- ☐ after three months of the filing date of this national application or the date of entry of the national stage in an international application, or after the mailing date of the first official action on the merits, whichever event last occurred, but before the mailing date of the first to occur of either: (1) a final action under 37 CFR §1.113; or (2) an action that otherwise closes prosecution in the application, and:
  - ☐ attached hereto is the fee set forth under 37 CFR §1.17(p) for submission of this Information Disclosure Statement under 37 CFR. § 1.97(c); OR
  - ☐ Applicant certifies pursuant to 37 CFR § 1.97(e) that:
    - ☐ each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; OR
    - ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement;
- ☐ before the payment of the issue fee but after the mailing date of the first to occur of either: (1) a final action under 37 CFR § 1.113; or (2) an action that otherwise closes prosecution in the application, and:
  - ☐ Applicant certifies pursuant to 37 CFR. § 1.97(e) that:
    - ☐ each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; or
    - ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application

and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement; AND

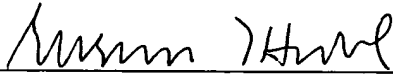
- ☐ attached hereto is the fee set forth under 37 CFR §1.17(p) for submission of this Information Disclosure Statement under 37 CFR. § 1.97(c); OR
- ☐ after the payment of the issue fee. Applicant request that the information contained in this Information Disclosure Statement be placed in the file according to 37 CFR § 1.97(i), although the information may not be considered by the USPTO.
- ☐ This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application No. [APPLICATION NUMBER], filed on [FILING DATE], and the references cited therein are hereby referenced, but are not required to be provided in this application under 37 CFR § 1.98(d).
- ☐ Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application, and the communication was not received by any individual designated in 37 CFR § 1.56(c) more than thirty days prior to the filing of this Information Disclosure Statement. 37 CFR § 1.704(d).
- ☒ Applicant submits that no fee is required for the consideration of this Information Disclosure Statement.

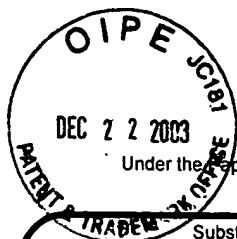
Consideration of the listed references and favorable action are solicited.

Respectfully submitted,

BRENDA F. BAKER *et al.*

Dated: ~~October~~ 12/16, 2003

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

mailed 12/16/03

**Complete if Known**

Application No.	10/666,909
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First Named Inventor	Brenda F. Baker et al.
Art Unit	Not Yet Known
Examiner Name	Not Yet Known
Attorney Docket Number	23546-07993

Sheet 1 of 3

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document No. Number – Kind Code <sup>2</sup> (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
	A1	US-5,985,554	11/16/1999	Tanimura et al.
	A2	US2002/0106799 A1	08/08/2002	Finer et al.

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> – Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>
	B1	WO 99/12567	03/19/1999	UAB Research Foundation	

**OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>6</sup>
	C1	Blair, H.C., 'Parathyroid Hormone-Regulated Production of Stem Cell Factor in Human Osteoblasts and Osteoblast-like Cells,' <i>Biochemical and Biophysical Research Communications</i> , 255, 1999, 778-784.	
	C2	Bowman, N. N. et al., 'Gap Junctional Intercellular Communicative Contribution to the Contraction of Rat Osteoblast Populated Collagen Lattices,' <i>Journal of Bone and Mineral Research</i> , Vol. 13, No. 11, 1998, 1700-1706.	
	C3	Du, P. et al., 'Regulation of PTH/PTH-Related Protein Receptor Expression by Endogenous PTH-Related Protein in the Rat Osteosarcoma Cell Line ROS 17/2.8,' <i>Endocrine</i> , Vol. 12, No. 1, February 2000, 25-33.	
	C4	Du, P. et al., 'Endogenous Parathyroid Hormone-Related Peptide Enhances Proliferation and Inhibits Differentiation in the Osteoblast-Like Cell Line ROS 17/2.8,' <i>Bone</i> , Vol. 26, No. 5, May 2000, 429-436.	
	C5	Enomoto, H. et al., 'Autocrine/Paracrine Function of Parathyroid Hormone-Related Peptide in Rat Osteoblast-Like Cells,' <i>Biochemical and Biophysical Research Communications</i> , Vol. 191, No. 3, March 31, 1993, 1261-1269.	

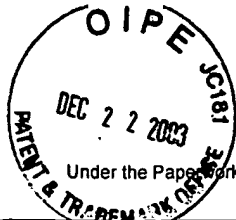
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Application No.	10/666,909
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Sheet 2 of 3

**OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>6</sup>
	C6	Gotoh, M. et al., 'Enhancement of osteogenesis in vitro by a novel osteoblast differentiation-promoting compound, TAK-778, partly through the expression of Mx2,' <i>European Journal of Pharmacology</i> , 451, 2002, 19-25.	
	C7	Huang, B. K. et al., 'Insulin-Like Growth Factor I Production Is Essential for Anabolic Effects of Thyroid Hormone in Osteoblasts*,' <i>Journal of Bone and Mineral Research</i> , Vol. 15, No. 2, 2000, 188-197.	
	C8	Ishibashi, H. et al., 'Involvement of type VI collagen in interleukin-4-induced mineralization by human osteoblast-like cells in vitro,' <i>Biochimica et Biophysica Acta</i> , 1472, 1999, 153-164.	
	C9	Jones, P. S. et al., 'Activation of Transcription by Estrogen Receptor $\alpha$ and $\beta$ Is Cell Type- and Promotor-dependent*,' <i>The Journal of Biological Chemistry</i> , Vol. 274, No. 45, November 5, 1999, 32008-32014.	
	C10	Kong, Y.-Y. and Penninger, J. M., 'Molecular control of bone remodeling and osteoporosis,' <i>experimental Gerontology</i> , 35, © 2000, 947-956.	
	C11	Kruger, S. et al., 'Inhibitory Effects of Antisense Cathepsin B cDNA Transfection on Invasion and Motility in a Human Osteosarcoma Cell Line <sup>1</sup> ,' <i>Cancer Research</i> , 59, December 1, 1999, 6010-6014.	
	C12	Kukita, A. et al., 'Osteoclast-Derived Zinc Finger (OCZF) Protein With POZ Domain, a Possible Transcriptional Repressor, Is Involved in Osteoclastogenesis,' <i>Blood</i> , Vol. 94, No. 6, September 15, 1999, 1987-1997.	
	C13	McCarthy, T. L. et al., 'Runt Domain Factor (Runx)-dependent Effects on CCAAT/Enhancer-binding Protein $\delta$ Expression and Activity in Osteoblasts*,' <i>The Journal of Biological Chemistry</i> , Vol. 275, No. 28, July 14, 2000, 21746-21753.	
	C14	Olie, R. A. et al., 'A Novel Antisense Oligonucleotide Targeting Survivin Expression Induces Apoptosis and Sensitizes Lung Cancer Cells to Chemotherapy <sup>1</sup> ,' <i>Cancer Research</i> , 60, June 1, 2000, 2805-2809.	
	C15	Riikonen, T. et al., 'Transforming Growth Factor- $\beta$ Regulates Collagen Gel Contraction by Increasing $\alpha 2 \beta 1$ Integrin Expression in Osteogenic Cells*,' <i>The</i>	

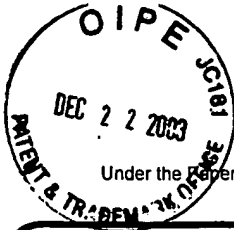
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**INFORMATION DISCLOSURE  
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Applicant No.	10/666,909
Filing Date	September 17, 2003
First Named Inventor	Brenda F. Baker et al.
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Sheet 3 of 3

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		<i>Journal of Biological Chemistry</i> , Vol. 270, No. 1, January 6, 1995, 376-382.	
	C16	Takeshita, A. et al., '1 $\alpha$ ,25-Dehydroxyvitamin D <sub>3</sub> Synergism toward Transforming Growth Factor- $\beta$ 1-induced AP1 Transcriptional Activity in Mouse Osteoblastic Cells via Its Nuclear Receptor*,' <i>The Journal of Biological Chemistry</i> , Vol. 273, No. 24, June 12, 1998, 14738-14744.	
	C17	Vander Molen, M. A. et al., 'Gap Junctional Intercellular Communication Contributes to Hormonal Responsiveness in Osteoblastic Networks*,' <i>The Journal of Biological Chemistry</i> , Vol. 271, No. 21, May 24, 1996, 12165-12171.	
	C18	You, J. et al., 'P2Y Purinoceptors Are Responsible for Oscillatory Fluid Flow-induced Intracellular Calcium Mobilization in Osteoblastic Cells*,' <i>The Journal of Biological Chemistry</i> , Vol. 277, No. 50, December 13, 2002, 48724-48729.	

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